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Considerations on medical training for gender-affirming care: Motivations and perspectives

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ABSTRACT

Background: Many transgender individuals lack access to needed medical care, partially due to a lack of providers with experience in gender-affirming healthcare.

Aims: The purpose of this study was to identify professional motivators for medical providers seeking out training in gender-affirming care and to define which training experiences were most beneficial to their career development. By identifying experienced providers' recommendations on which training modalities are most relevant to their practice, we aim to suggest future directions for medical education initiatives to effectively expand the transgender care workforce.

Methods: A voluntary cross-sectional electronic survey was distributed through professional listservs and publicly-available referral lists to interdisciplinary providers who self-identified as having experience in providing care to transgender individuals.

Results: One hundred and fifty-three (n = 153) physicians, physician assistants, or advance-practice nurses responded to the survey. The majority (96.7%) were located in the United States, representing 37 states. The two most common motivators for seeking out training in gender-affirming care were filling a need in the community (73.0%) and/or having met a transgender-identified person in a clinical setting who requested care (63.8%). While many providers gained skills independently (57.3%), the two most commonly-available training opportunities were professional conferences (57.3%) and mentorship (41.3%). Respondents were most likely to recommend that others in their field be trained via structured clinical experience (e.g., a rotation or longitudinal exposure during training), rather than additional didactic training.

Discussion: This study identifies key high-yield training methodologies which could improve access to quality gender-affirming healthcare. Through integration of structured clinical experiences during training, direct clinical mentorship, and professional development at conferences on gender-affirming care, the workforce of welcoming and prepared healthcare providers for transgender patients will increase. This will lead to a tremendous improvement on access to gender-affirming care in our communities.

KEYWORDS
Transgender; medical education; gender dysphoria; training; mentorship

Introduction

Transgender individuals, whose gender identity does not match with the binary sex they were assigned at birth, comprise about 0.6% of the adult United States (U.S.) population (Flores, Herman, Gates, & Brown, 2016). Transgender persons who struggle with significant distress due to their secondary sexual characteristics may seek to affirm their gender with the use of hormones or surgical procedures, requiring contact with the healthcare system. Increased societal visibility and improved coverage of services has driven more individuals to seek out this medical care (Clements-Nolle, Marx, Guzman, & Katz, 2001; Kauth et al., 2014), but transgender persons still commonly experience negative interactions within clinical settings such as refusal of care (Bauer, Scheim, Deutsch, & Massarella, 2014; Bauer, Zong, Scheim, Hammond, & Thind, 2015; Carson, 2009; Clark, Veale, Townsend, Frohard-Dourlent, & Saewyc, 2018; Clements-Nolle et al., 2001; Dewey, 2008; Fredriksen-Goldsen et al., 2014; FTM., 2004; Grant et al., 2010; Hartzell, Frazer, Wertz, & Davis, 2009; James et al., 2016;

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Kenagy, 2005; Kosenko, Rintamaki, Raney, & Maness, 2013; Lambda Legal, 2010; Sperber, Landers, & Lawrence, 2005; White Hughto, Murchison, Clark, Pachankis, & Reisner, 2016), discriminatory behavior/language (Bauer et al., 2014, 2015; Bradford, Reisner, Honnold, & Xavier, 2013; Carson, 2009; Grant et al., 2010; Heng, Heal, Banks, & Preston, 2018; Kauth et al., 2014; Kosenko et al., 2013; Lambda Legal, 2010; McPhail, Rountree-James, & Whetter, 2016; Rodriguez, Agardh, & Asamoah, 2018; Rosentel, Hill, Lu, & Barnett, 2016; Sperber et al., 2005; Xavier, Honnold, & Bradford, 2007), or even physical/sexual threats to safety (Carson, 2009; Grant et al., 2010; Kauth et al., 2014; Lambda Legal, 2010; Rosentel et al., 2016). These negative experiences often lead to avoidance or delay in needed medical care (Carson, 2009; Cruz, 2014; FTM., 2004; Grant et al., 2010; Hartzell et al., 2009; Kauth et al., 2014; Macapagal, Bhatia, & Greene, 2016; Sevelius, Patouhas, Keatley, & Johnson, 2014; Xavier et al., 2007) and the use of hormones or body-shaping procedures without medical supervision, which can result in negative outcomes (Carson, 2009; Clements-Nolle et al., 2001; Dewey, 2008; Reback, Simon, Bemis, & Gatson, 2001; Sanchez, Sanchez, & Danoff, 2009; Sperber et al., 2005; Xavier, Bobbin, Singer, & Budd, 2005; Xavier et al., 2007).

Cross-sectional studies demonstrate that patients who have access to a provider that they view as transgender-inclusive have decreased rates of depression and suicidality compared to those without, and that there is a moderate positive correlation between individuals feeling respected by and comfortable with their general practitioner and self-reports of mental well-being (Kattari, Walls, Speer, & Kattari, 2016; Nuttbrock et al., 2010; Riggs, Coleman, & Due, 2014). Transgender individuals who have experienced refusal of care or who delay/avoid care due to fear of discrimination have rates of suicide which exceed 50% (Haas, Rodgers, & Herman, 2014; Kattari et al., 2016). Despite this, many transgender individuals risk negative interactions in order to access hormones and often will enter medical care specifically for this reason (James et al., 2016).

Other barriers to care for transgender individuals involve issues with the ability to access desired healthcare services (Bockting, Miner, Swinburne Romine, Hamilton, & Coleman, 2013; Bradford et al., 2013; Carson, 2009; FTM., 2004; Kenagy, 2005; Kenagy & Bostwick, 2005; Macapagal et al., 2016; McPhail et al., 2016; Salkas, Conniff, Stephanie, & Budge, 2018; Sanchez et al., 2009; Sperber et al., 2005), in part due to difficulty finding providers who are knowledgeable and willing to provide transgender care (Lambda Legal, 2010), and the need to travel great distances to obtain care (Kauth et al., 2014; Rosentel et al., 2016). In order to improve health care outcomes, transgender persons need access to gender-affirming care, defined as medical care that optimizes health while recognizing and working to alleviate distress caused by gender incongruence. Thus, it is critical to build a workforce of providers who are knowledgeable and comfortable providing gender-affirming care.

Evidence supports that gender-affirming care education can be successfully integrated in various clinical and instructional contexts with resultant increase in clinicians' willingness to care for transgender patients (Hughto et al., 2017) and a positive impact on learners' attitudes toward transgender patients (Cherabie, Nilsen, & Houssayni, 2018). Despite this, studies show that healthcare providers across specialties have minimal formal training on gender-affirming care (Beagan, Fredericks, & Bryson, 2015; Chan, Skocylas, & Safer, 2016; Dowshen, Nguyen, Gilbert, Feiler, & Margo, 2014; Eliason, Dibble, & Robertson, 2011; Müller, 2013; Obedin-Maliver et al., 2011; Parameshwaran, Cockbain, Hillyard, & Price, 2017; White et al., 2015; Zuzelo, 2014), with a median of 5 hours of content on all of lesbian, gay, bisexual and transgender (LGBT) health taught in medical schools in the United States and Canada (Obedin-Maliver et al., 2011). Lack of access to knowledgeable gender-affirming care providers compounds risk to a marginalized group of individuals (Haas et al., 2014) for whom gender-affirming treatment has been shown to increase quality of life (Murad et al., 2010), to improve mental health measures (Bauer et al., 2015; Murad et al., 2010; Riggs et al., 2014; Wilson, Chen, Arayasirikul, Wenzel, & Raymond, 2015), and to reduce high-risk behavior (Sanchez et al., 2009; Wilson et al., 2015).

In order to increase the gender-affirming care workforce, best practices for training healthcare professionals across multiple disciplines needs to be established. Medical educators have explored gaps in curricula and augmented education for learners at multiple levels of training in a variety of formats; these interventions have shown short-term increase in knowledge, attitudes, and confidence about and toward gender-affirming care (Dowshen et al., 2014). However, these initiatives fail to define which trainings or interventions will lead to long-term knowledge gain and a persisting change in attitudes towards transgender patients. Our study aims to describe those opportunities which are more likely to inspire and enable providers to incorporate gender-affirming care into their practice based on recommendations from current providers of gender-affirming care.

Methods

The study team at University of Cincinnati College of Medicine developed an online, anonymous, cross-sectional survey using SurveyMonkey. The study team included physicians with experience in providing gender-affirming primary care, including hormones and psychopharmacology services to individuals with a transgender/gender non-confirming experience. The survey was distributed via e-mail to a multidisciplinary group of healthcare providers and teams with self-defined experience in providing gender-affirming care. Participants could invite their interdisciplinary colleagues to also complete the survey. The study was approved by the University of Cincinnati Institutional Review Board.

The inclusion criteria for completion of the survey were medical professionals who had self-identified experience providing healthcare to transgender/gender non-conforming individuals. There were no minimum criteria for the length or volume of experience and no requirement that the individual verify competence in gender-affirming care. The ability for participants to self-identify as experienced transgender health providers was intentional in order to capture a breadth of experience (including providers with 10 or more years of dedicated work in large interdisciplinary clinics dedicated to transgender health, earlier career providers, those seeing lower volumes of transgender patients, and those in solo practice).

The survey instrument collected information on 1) geographic location of practice; 2) type(s) of practice(s) that respondents worked in; 3) types of gender-affirming care provided; 4) provider's years and volume of experience with transgender patients; 5) access to and benefit from training opportunities; and 6) recommendations for training others in transgender health. The survey data was analyzed using bivariate and descriptive analyses performed using IBM SPSS software version 24/25.

Results

Respondent characteristics

Of the 473 interdisciplinary respondents to the survey, 153 (32.3%) were clinical providers (referred to henceforth as "providers"), defined as physicians, physician assistants, nurse practitioners, and nurse midwives. Responses from other survey participants, representing multiple other healthcare disciplines, are beyond the scope of this discussion. The majority (n = 148) of the 153 providers practice within the U.S., with distribution across 37 states and representing all major geographic regions. Other provider respondents were from Canada (n = 3) and Europe (n = 2).

Providers represented a diverse group of specialties and provided a wide range of services to their clients. The majority (59.9%) reported providing primary care, 73.9% reported prescribing gender-affirming hormones, and 11.9% reported providing chest (breast) or genital surgery. 49% (n = 75) of respondents provide care for patients who are 18 years old and younger, 79.7% (n = 122) provided care to individuals 19–25 years old, 83.0% (n = 127) provide care to adults 26–59 years old and 58.2% (n = 89) reported providing care to individuals 60 years old and older. Among the physicians, 100% of the endocrinologists, 92.9% of the family medicine physicians, 85.7% of adolescent medicine physicians, 83% of the obstetrician/gynecologists, 68.8% of the internal medicine physicians, 62.5% of the pediatricians, and 16.7% of the adult psychiatrists reported prescribing gender-affirming hormones. More characteristics of respondents can be found in Table 1.

Many of the overall respondent group were early career clinicians, with 51.3% having been less than 10 years out of training. When asked about level of experience with gender-affirming care, 50.1% reported having been providing care to transgender individuals for 5 or more years and 70.2% estimated that less than 25% of their patients identified as transgender (Table 1). Respondents provided health care in diverse settings, with only 18.1% working in an interdisciplinary LGBT center or program. 42.3% reported that their practice was affiliated with an academic institution and 44.3% work in outpatient primary care settings. Most (60.7%) practiced in urban settings and fewer (8.4%) practiced in rural settings (Table 2). All of the five respondents who worked exclusively in a rural setting reported that less than 5% of their total patient panel identified as transgender/gender non-conforming. Among those who worked exclusively in an urban setting, 46% reported less than 5% of their total patient panel identified as transgender/gender non-conforming.

Motivations for seeking training

The two most common motivators for providers having sought training in gender-affirming care were filling a need in the community (73.0%) and/or seeking to learn more after having met a transgender person in a clinical setting who requested this care (63.8%). A small portion (13.7%) reported having been inspired to seek out this training due to a lecture, course, or rotation while they were in graduate school or during training, and 4.3% were exposed to this skill set by a presentation at a professional conference.

Table 1. Characteristics of survey respondents.

		n	%
Job description	Physician	124	81.0%
	Nurse practitioner	21	13.7%
	Physician assistant	5	3.3%
	Nurse midwife	3	2.0%
Specialty/specialties*	Family medicine	56	37.3%
	Adult psychiatry	24	16.0%
	Internal medicine	16	10.7%
	Endocrinology	15	10.0%
	Obstetrics/gynecology	12	8.0%
	Pediatrics	8	5.3%
	Adolescent medicine	7	4.7%
	Pediatric endocrinology	7	4.7%
	Plastic surgery	7	4.7%
	Child/adolescent psychiatry	7	4.7%
	Women's health	4	2.7%
	Pediatric and adolescent gynecology	3	2.0%
	Integrative medicine	2	1.3%
	Reproductive endocrinology	2	1.3%
	Emergency medicine	1	0.7%
	Urology	1	0.7%
	Preventative medicine	1	0.7%
Services provided*	Gender-affirming hormone management	105	73.9%
	Primary care services	85	59.9%
	Gynecological services	56	39.4%
	Psychopharmacology services	53	37.3%
	Obstetrical services	16	11.3%
	Gender-affirming chest surgery	6	4.2%
	Gender-affirming genital surgery	6	4.2%
	Tracheal shave	5	3.5%
	Fertility services	4	2.8%
Years in practice	Still in training	12	8.1%
	0–4.9 years	41	27.7%
	5–9.9 years	23	15.5%
	10–19.9 years	28	18.9%
	20 years or more	44	29.7%
Years providing gender-affirming care	0–4.9 years	72	49.0%
	5–9.9 years	31	21.1%
	10 years or more	44	29.9%
Estimated percentage of patient panel that identifies as transgender	Less than 5%	68	45.0%
	5–24.9%	38	25.2%
	25–49.9%	24	15.9%
	50% or more	20	13.2%

*Choose all that apply.

Table 2. Settings in which respondents work.

		n	%
Setting of clinical practice(s)*	Urban	108	60.7%
	Suburban	29	16.3%
	Town	26	14.6%
	Rural	15	8.4%
Type of clinical practice(s)*	Outpatient primary care office	66	44.3%
	Academic setting (university-affiliated hospital or office)	63	42.3%
	Inpatient medical setting	28	18.8%
	Interdisciplinary LGBT office/program	27	18.1%
	Other outpatient specialty office or services (excluding mental health)	19	12.8%
	Inpatient consultation	14	9.4%
	Outpatient women's health center	12	8.1%
	Surgical setting (outpatient consults with inpatient procedures)	9	6.0%
	Outpatient community mental health center	7	4.7%
	Outpatient private mental health practice	6	4.0%
	Inpatient mental health setting	6	4.0%
	Outpatient university student health office	3	2.0%
	Other	27	18.1%

*Choose all that apply.

Twenty-eight percent of respondents who reported learning gender-affirming care because it was an expectation in their work setting did not identify any other motivating factors for seeking training in gender-affirming care. Individuals who worked in an LGBT center/program were no more likely to report that they learned the skill set because it was an expectation of their worksite than those who did not report working in an LGBT center/program (37% vs 34%, $p > 0.05$). Individuals in all settings reported that filling a need in the community was a reason they began providing gender-affirming care: 60% of those who worked exclusively in a rural setting cited this as a motivator compared to 68.7% of those who worked exclusively in an urban setting.

Training opportunities

Most providers (57.3%) described being self-taught without any formal training in transgender health, but many reported having augmented their skills and knowledge in various ways (Table 3). The most common sources of training other than self-study of literature/guidelines were learning sessions at professional conferences (57.3%) and mentorship (41.3%). Of the 35 unique respondents who reported access to training during residency and/or fellowship, only three listed no other sources of training, and all had been practicing for five years or less. Only three providers reported having received training in graduate school, two of whom were physicians and both of whom also reported access to training during residency and/or fellowship.

Among the 105 individuals who reported that they provide hormone management, 61% ($n = 64$) reported having attended a conference, 47.6% ($n = 50$) reported having had mentorship, 22.9% ($n = 24$) reported on-site training with their employer, 15.2% ($n = 16$) reported having learned during residency, and 14.3% ($n = 15$) reported learning these skills in fellowship. Among the 64 physicians who reported providing gender-affirming primary care services, 20.3% ($n = 13$) reported learning these skills during residency. Providers practicing for less than 10 years were significantly more likely to have received training on gender-affirming care during residency or fellowship than their peers practicing for 10 or more years (34.2% vs 12.5%, $p = 0.002$). Respondents who worked in an interdisciplinary LGBT center/program were more likely to report having access to on-site training than those who did not work in an interdisciplinary LGBT center/program (37% v 18%, $p = 0.032$), but were no more likely to have mentorship than respondents who did not work in an LGBT center (78% v 76%, respectively). While 82 respondents (53.5%) attended a conference on transgender health, only two (2.4%) reported this as their only source of training. In the open comments section of the survey, respondents identified conferences hosted by Fenway, University of California San Francisco, the World Professional Association of Transgender Health (WPATH), Gender Odyssey and Philly Trans Health conferences as beneficial.

Table 3. Training opportunities available to respondents.

	Respondents reporting exposure to training opportunities		*Respondents identification of the single most helpful opportunity they had had exposure to*	
	n	*Percent of total respondents reporting the availability of this opportunity**	*n*	*Percent of those who reported exposure to this opportunity that chose it as their single most helpful opportunity*
Self-study of literature and guidelines	104	72.7%	39	37.5%
Professional conference	82	57.3%	32	39.0%
Self-taught without professional training	82	57.3%	13	15.9%
Mentorship	59	41.3%	34	57.6%
On-site training provided by employer	32	22.4%	7	21.9%
Training during residency	22	14.4%	4	18.2%
Training during fellowship	21	13.7%	7	33.3%
Training during graduate school	3	2.1%	0	0%
Training during internship	2	1.4%	1	50%
Training during undergraduate studies	1	0.7%	0	0%

*Respondents could choose all answers which reflected experiences they had access to so percentage will not add up to 100%.

Respondents' identification of the single most helpful learning opportunity they experienced are listed in Table 3, with mentorship being identified as a particularly helpful opportunity to augment learning of these skills. Additional comments from many respondents also cited their patients and colleagues as other important sources of knowledge.

Training recommendations

When respondents were asked to recommend training methods for future providers, they were most likely to recommend clinical experience (e.g., a rotation or longitudinal exposure during training, 34.5%), followed by mentorship (19%), training in residency/fellowship (11.9%), on-site training by employer (11.3%), and professional conferences (8.5%) (see Table 4). There was no difference in the likelihood of recommending training in a clinical setting (graduate school, medical school, internship, residency, fellowship, or clinical experience) vs. other setting (conference, self-study of guidelines, or mentorship) between physicians and other providers ($p = 0.482$) or between surgical and non-surgical providers ($p = 0.259$). There was no difference in the proportion of respondents who reported that <25% of their patient panel identified as transgender between providers who reported an institutional expectation to provide gender-affirming care and those who did not ($p = 0.357$).

Table 4. Recommendations for training methods.

	n	%
Clinical experience/rotation	49	34.5%
Mentorship	27	19.0%
On-site training provided by employer	16	11.3%
Professional conference	12	8.5%
Training in residency	10	7.0%
Training in fellowship	7	4.9%
Self-study of literature and guidelines	2	1.4%
Training in medical school	1	0.7%

Respondents were limited to a single selection and did not need to have had access to the training method themselves.

Discussion

This study, the largest survey to date identifying a multidisciplinary set of providers practicing gender-affirming care across the U.S., provides insight into providers' work settings, scope of practice, training experiences in transgender medicine and recommendations for best practices in training future providers in gender-affirming care. It also highlights the deficiency in structured curriculum in the academic setting where early career learners could gain the necessary knowledge. Providers caring for transgender patients were motivated to seek training in order to meet the needs of their communities and after professional contact with transgender patients. This would suggest that to expand the gender-affirming care workforce, medical trainees need exposure to the care of transgender patients early in their career when they are still formulating career plans. Early exposure to transgender medicine, with an emphasis on the needs present in many communities, has the potential to inspire trainees to provide gender-affirming care when they are in clinical practice. Once providers and

providers-in-training are interested in expanding their ability to care for transgender patients, training opportunities tailored to the allow providers to practice safe and evidence-based care need to be available.

Respondents from this survey identify a multi-step and multi-modal approach as being the most effective strategy for training in gender-affirming care. While many gender-affirming care providers report having developed their own skills through self-study of clinical guidelines, their recommendations for future learners included clinical rotations and longitudinal care experiences, as well as mentorship and professional conferences. These results reinforce the validity of current curricular elements in development by medical schools and residencies, especially those which give trainees the opportunities to meet and provide direct care for transgender individuals. Our results also confirm the increasing presence of gender-affirming care curricula in residency/fellowship training programs with earlier-career professionals being more likely to identify having learning opportunities during training than later-career professionals.

Furthermore, these results support knowledge and experience gaps addressed by the WPATH certification program, which offers medical providers exposure to core competencies of transgender medicine through foundational and advanced courses at professional conferences. The WPATH training program also includes requirements of providers to care directly for transgender patients and pairs them with a mentor for ongoing guidance (WPATH, n.d.).

The survey respondents varied geographically, with large representation from clinicians practicing outside of dedicated academic LGBT centers which staff interdisciplinary teams dedicated to gender-affirming care. The diverse characteristics of the respondents in regard to their specialties and clinical practice settings is encouraging, because it demonstrates that gender-affirming care can and does exist outside large cities and academic centers and is possible in more isolated primary care settings. These features are important when considering mentorship as a key component of training in gender-affirming medicine. The geographic breadth of the gender-affirming care workforce, confirmed and captured by respondents to this survey, suggests that cohorts of providers can create regional networks for peer mentorship.

Our study also suggests institutional expectation of providing care for transgender persons is a strong motivator for providers engaged in transgender medicine. Of those respondents who identified employer expectation as a motivator for providing gender-affirming care, more than a quarter of them identified no additional motivators. This suggests that expansion of the gender-affirming care workforce also must also be supported at the institutional level, in addition to the individual provider level. Policies at the health care system and organizational level that support patients' rights to access gender-affirming care and provider training to eliminate health disparities will serve as motivators for the provision of gender-affirming care.

Limitations of this study include the inability to measure a response rate. The invitation was sent out via professional listservs with unknown total membership and participants were invited to share the survey with professional colleagues with experience in transgender health, resulting in an unknown breadth of total distribution. Since this survey represents a convenience sample, there may be over-representation of some groups of providers based on the professional network from which the survey originated, influenced by geography, the authors' specialties, and on the academic setting in which the authors work; thus, the practice patterns and locations described by this sample cannot be used to define the larger workforce (further demonstrated by the fact that some of the largest and most established gender clinics are not represented in our survey). Because the invitation was distributed electronically and participation was voluntary, there may be selection bias. Since there is currently no way to verify knowledge or experience in gender-affirming care, respondents were self-described as being experienced in caring for transgender individuals; while this could suggest that not all respondents would be considered experts, it is critical to get the perspective of members of the workforce who are early in their careers and/or new to gender-affirming care when evaluating best methods to train professionals in this

skill-set. In addition, attitudes and biases of the respondents themselves, was not assessed in this survey and is an important limitation.

While this study provides recommendations on motivators and training methodologies which would better equip providers to successfully provide gender-affirming care, future research should aim to solidify the most effective timing of this training for physicians and advanced practice providers (physician assistants, nurse practitioners, midwives), due to the structural differences in their training. Further, more information on best practices for training the interprofessional team, including mental health and social work professionals, is needed.

Conclusion

This study is the largest to date that describes the gender-affirming care workforce and describes optimal ways in which physicians, nurse practitioners, midwives and physician assistants can be trained in gender-affirming care. This study identifies key high-yield training opportunities, which could improve access to quality gender-affirming healthcare. By offering structured clinical experiences during training in addition to clinical mentorship and ongoing professional development through conferences, the workforce of health providers for transgender patients will increase.

Disclaimer

Subsets of this data has been presented previously as a poster at the Society of Teachers of Family Medicine annual meeting in Washington, D.C. in May 2018 and in a poster at the WPATH Biennial Symposium in Buenos Aires in November 2018.

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